//Programmed By AUMRUDH LAL KUMAR TJ

//JAVA – Method Overloading

PGM – 1

imaumrudh@Aumrudh-PC:~/java/ex5/pgm1$ cat Test.java

import java.util.Scanner;

class Degree{

/\*\* This is base class . It has a method getDegree.

\* @author aumrudh

\* @since 2020/01/23

\*/

//getter method

public void getDegree(){

System.out.println("I got a Degree");

}

}

class UnderGraduate extends Degree{

/\*\* This is derived class ug. It also has same method GetDegree.

\*/

//getter method

public void getDegree(){

System.out.println("I am an UnderGraduate");

}

}

class PostGraduate extends Degree{

/\*\* This is derived class pg. It also has same method GetDegree.

\*/

//getter method

public void getDegree(){

System.out.println("I am an PostGraduate");

}

}

public class Test{

/\*\* THis is sample Test class. Here we invoke getMethods.

\*/

public static void main(String args[]){

Degree dobj=new Degree();

dobj.getDegree();

UnderGraduate uobj=new UnderGraduate();

uobj.getDegree();

PostGraduate pobj=new PostGraduate();

pobj.getDegree();

}

}

imaumrudh@Aumrudh-PC:~/java/ex5/pgm1$ java Test

I got a Degree

I am an UnderGraduate

I am an PostGraduate

PGM 2

imaumrudh@Aumrudh-PC:~/java/ex5/pgm2$ cat Test.java

import java.util.Scanner;

class Bank{

/\*\* Base class.Has getBalance Method

\* @author aumrudh

\* @version 2020-01-23

\*/

public int getBalance(){

System.out.println("I am in Base Class.No amount");

return 0;

}

}

class BankA extends Bank{

/\*\*Derived Class BankA .Has getBalance Method.

\*/

private int bal;

public void putBal(int bal){

this.bal=bal;

}

public int getBalance(){

return bal;

}

}

class BankB extends Bank{

/\*\*Derived Class BankB .Has getBalance Method. \*/

private int bal;

public void putBal(int bal){

this.bal=bal;

}

public int getBalance(){

return bal;

}

}

class BankC extends Bank{

/\*\*Derived Class BankC .Has getBalance Method.

\*/

private int bal;

public void putBal(int bal){

this.bal=bal;

}

public int getBalance(){

return bal;

}

}

class Test{

/\*\* Test class.\*/

public static void main(String args[]){

BankA aobj=new BankA();

aobj.putBal(1000);

BankB bobj=new BankB();

bobj.putBal(1500);

BankC cobj=new BankC();

cobj.putBal(2000);

System.out.print("1-BankA\n2-BankB\n3-BankC\nEnter your choice : ");

Scanner ip=new Scanner(System.in);

int ch=ip.nextInt();

if(ch==1){

System.out.println("Balance in BankA is : "+aobj.getBalance());

}

else if(ch==2){

System.out.println("Balance in BankB is : "+bobj.getBalance());

}

else if(ch==3){

System.out.println("Balance in BankC is : "+cobj.getBalance());

}

else{

System.out.println("Wrong Choice");

}

}

}

imaumrudh@Aumrudh-PC:~/java/ex5/pgm2$ java Test

1-BankA

2-BankB

3-BankC

Enter your choice : 1

Balance in BankA is : 1000

imaumrudh@Aumrudh-PC:~/java/ex5/pgm2$ java Test

1-BankA

2-BankB

3-BankC

Enter your choice : 2

Balance in BankB is : 1500

imaumrudh@Aumrudh-PC:~/java/ex5/pgm2$ java Test

1-BankA

2-BankB

3-BankC

Enter your choice : 3

Balance in BankC is : 2000

PGM 3

imaumrudh@Aumrudh-PC:~/java/ex5/pgm3$ cat Test.java

import java.util.Scanner;

class Customer{

/\*\* Customer class . Has customer id and name.

\* Has constructor and display method.

\* @author aumrudh

\* @since 2020-01-23

\*/

private int cid;

private String cname;

public Customer(int cid,String cname){

this.cid=cid;

this.cname=cname;

}

public void cdisplay(){

System.out.println("Customer ID : "+cid);

System.out.println("Customer Name : "+cname);

}

}

class Account{

/\*\* Account Class. Has accout id and type.

\* Has constructor and display method.

\*/

private int aid;

private String atype;

public Account(int aid,String atype){

this.aid=aid;

this.atype=atype;

}

public void adisplay(){

System.out.println("Account Id : "+aid);

System.out.println("Account Type : "+atype);

}

}

class RBI{

/\*\* Reserve Bank of India Class. Has Customer and account object.

\* Has Intrest rate and withdrawal limit data members.

\* Has Constructor and Getter methods

\*/

Customer c;

Account a;

private double IR=0.4;

private double wl=50000;

public RBI(Customer c,Account a){

this.c=c;

this.a=a;

}

public double getIR(){

return IR;

}

public double getWL(){

return wl;

}

}

class SBI extends RBI{

/\*\* Derived class . Has intrst rate and withdrawal limit.

\*/

public SBI(Customer c,Account a){

super(c,a);

}

private double IR=0.5;

private double wl=55000;

public double getIR(){

return IR;

}

public double getWL(){

return wl;

}

}

class ICIC extends RBI{

/\*\* Derived class .Has intrst rate and withdrawal limit.

\*/

private double IR=0.8;

private double wl=80000;

public ICIC(Customer c,Account a){

super(c,a);

}

public double getIR(){ return IR; }

public double getWL(){ return wl; }

}

public class Test{

/\*\* Sample Test class . user choice of bank is got and details is printed\*/

public static void main(String args[]){

Scanner ip=new Scanner(System.in);

System.out.print("Enter customer id : ");

int c=ip.nextInt();

System.out.print("Enter customer name : ");

String cn=ip.next();

System.out.print("Enter Account id : ");

int a=ip.nextInt();

System.out.print("Enter Account type : ");

String at=ip.next();

Customer cobj=new Customer(c,cn);

Account aobj=new Account(a,at);

System.out.print("1-SBI\n2-ICIC\nEnter your Choice : ");

int ch=ip.nextInt();

RBI ref;

if(ch==1){

SBI sobj=new SBI(cobj,aobj);

ref=sobj;

cobj.cdisplay();

aobj.adisplay();

System.out.println("Intrest Rate : "+ref.getIR());

System.out.println("Withdrawal Limit : "+ref.getWL());

}

if(ch==2){

ICIC iobj=new ICIC(cobj,aobj);

ref=iobj;

cobj.cdisplay();

aobj.adisplay();

System.out.println("Intrest Rate : "+ref.getIR());

System.out.println("Withdrawal Limit : "+ref.getWL());

}

else{

System.out.println("Wrong Choice ");

}

}

}

imaumrudh@Aumrudh-PC:~/java/ex5/pgm3$ java Test

Enter customer id : 25

Enter customer name : lal

Enter Account id : 0049

Enter Account type : savings

1-SBI

2-ICIC

Enter your Choice : 2

Customer ID : 25

Customer Name : lal

Account Id : 49

Account Type : savings

Intrest Rate : 0.8

Withdrawal Limit : 80000.0

PGM 4

imaumrudh@Aumrudh-PC:~/java/ex5/pgm4$ cat Test.java

import java.util.Scanner;

class APrint{

/\*\* Base class. Has i data member and Getter and Setter methods.

\* @author aumrudh

\* @since 2020-01-23

\*/

private int i;

public void printNum(){

System.out.println("i="+i);

}

public void putnum(int i){

this.i=i;

}

}

class BPrint extends APrint{

/\*\* Derived class. Has j data member and Getter and Setter methods.

\*/

private int j;

public void printNum(){

super.printNum();

System.out.println("j="+j);

}

public void putNum(int j){

this.j=j;

}

}

public class Test{

/\*\* Sample Test class.\*/

public static void main(String args[]){

Scanner ip=new Scanner(System.in);

System.out.print("Enter i Value : ");

int a=ip.nextInt();

System.out.print("Enter j Value : ");

int b=ip.nextInt();

BPrint obj=new BPrint();

obj.putnum(a);

obj.putNum(b);

obj.printNum();

}

}

imaumrudh@Aumrudh-PC:~/java/ex5/pgm4$ java Test

Enter i Value : 25

Enter j Value : 34

i=25

j=34